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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/593,097	09/15/2006	Christian Ohler	1004501-000862	7836

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EXAMINER

NGUYEN, HOANG M

ART UNIT	PAPER NUMBER
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3748

NOTIFICATION DATE	DELIVERY MODE
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11/29/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/593,097	Applicant(s) OHLER ET AL.	
	Examiner Hoang M. Nguyen	Art Unit 3748	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 February 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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Applicant's amendment dated February 16, 2010, has been fully considered.

Applicant amended the claims to recite "the first heat generating means is contained inside the insulated storage area of the heat storage device. Accordingly, a new ground of rejection has been made based on a newly discovered reference from further searches.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 5, 8-11, are rejected under 35 U.S.C. 103(a) as being unpatentable over US 5384489 (Bellac) in view of US 5042081 (Steffes et al). Bellac is relied upon to disclose it's well known to use a heat resistor/resistance 34 with a switch means 15 to control the heat input to a thermal storage device 43, the heat transfer devices 44, 54, for transferring heat to drive a steam-powered turbine-generator 64. Bellac does not teach the heat resistance is inside an insulated thermal storage device. Steffes et al teaches that it's well known in an electrical thermal storage heating unit 10 having heating coil 50 inside an insulated housing 20. It would have been obvious to modify the electric heater in Bellac to be inside an insulated housing of a thermal storage device for the purpose of preventing heat loss.

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Claims 1, 3-11, are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. 4942736 (Bronicki) in view of U.S. 5384489 (Bellac) and US 5042081 (Steffes et al). Bronicki discloses a system having a thermal storage device (160 or the reservoirs 104, 114, can also be considered as thermal storage devices), turbines 120a, 120b for driving an electric generator 130 to drive compressors 140 to warm up the thermal storage device 160, there are two heating means 102, 112, that are identical. Bronicki does not disclose the heat generating means is an electric heater inside a vessel, and the heater is inside an insulated housing. Bellac is relied upon to disclose it's well known to use a heat resistor/resistance 34 with a switch means 15 to control the heat input to a thermal storage device 43, the heat transfer devices 44, 54, for transferring heat to drive a steam-powered turbine-generator 64. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to provide an electric heater inside the thermal storage device of Bronicki as taught by Bellac for the purpose of achieving appropriate heat level. Steffes teaches it's well known in an electrical thermal storage heating unit 10 having heating coil 50 inside an insulated housing 20. It would have been obvious to modify the electric heater in Bronicki to be inside an insulated housing of a thermal storage device for the purpose of preventing heat loss.

Claims 1, 3-11, are rejected under 35 U.S.C. § 103(a) as being unpatentable over Applicant's admitted prior art (pages 1-2, and lines 1-7 of original claim 1 in form of

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Jepson claim) in view of U.S. 4942736 (Bronicki) and Bellac, Steffes et al. Applicant's admitted prior art on pages 1-2 and especially lines 1-7 of original claim 1 discloses the system with a heat storage device, heat transfer means, first heat generating means for heating the storage device with electrical power. Applicant's admitted prior art does not disclose a second heat generating means, and a heat resistor/resistance for the thermal storage with an insulated housing. Bronicki discloses a system having a thermal storage device (160 or the reservoirs 104, 114, can also be considered as thermal storage devices), turbines 120a, 120b for driving an electric generator 130 to drive compressors 140 to warm up the thermal storage device 160, there are two heating means 102, 112, that are identical. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to provide a second identical heat generating means in the system of Applicant's admitted prior art as taught by Bronicki for the purpose of supplementing the input power. Bellac is relied upon to disclose it's well known to use a heat resistor/resistance 34 with a switch means 15 to control the heat input to a thermal storage device 43. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to provide a heat resistor with switch means in Applicant's admitted prior art as taught by Bellac for the purpose of providing a more accurate heating and control means. Steffes teaches it's well known in an electrical thermal storage heating unit 10 having heating coil 50 inside an insulated housing 20. It would have been obvious to modify the electric heater in Applicant's admitted prior art to be inside an insulated housing of a thermal storage device for the purpose of preventing heat loss.

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Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Examiner Nguyen whose telephone number is (571) 272-4861. The examiner can normally be reached on Tuesday--Friday from 12:30 AM to 10:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion can be reached on 571-272-4859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Hoang M Nguyen/
Primary Examiner, Art Unit 3748

HOANG NGUYEN
PRIMARY EXAMINER
ART UNIT 3748

Hoang Minh Nguyen
11/23/2010